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November 1991

Electronic Market

TRENDS

The Authoritative Source for
Economic Information and Analysis
on the U.S. Electronics Industry



Contains:
September 1991 Factory Shipment Data
August 1991 Electronics Trade Data

TRENDS

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The Electronic Industries Association (EIA) has been the national trade organization representing U.S. electronics manufacturers since 1924. Committed to the competitiveness of the American producer, EIA represents the entire spectrum of companies involved in the manufacture of electronic components, parts, systems, and equipment for communications, industrial, government, and consumer-end uses.

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ECONOMIC HIGHLIGHTS

FACTORY SHIPMENTS SEPTEMBER 1991 VERSUS SEPTEMBER 1990

- U.S. Factory Shipments:

\$22.5 billion for month, up 1.7%

\$201.3 billion year-to-date, up 1.4%

	Month	Year-to-Date
Communications	up 2.0%	up 0.3%
Components	up 3.1%	up 1.4%
Computer/Industrial	down 3.9%	down 1.3%
Consumer	up 17.8%	up 10.7%
Other Related	up 6.6%	up 5.6%

ELECTRONICS TRADE AUGUST 1991 VERSUS AUGUST 1990

- U.S. Electronics Exports:

\$5.6 billion for month

\$47.0 billion year-to-date, up 6.8%

Communications	up 1.8%
Components	up 6.6%
Computer/Industrial	up 7.9%
Consumer	up 8.0%

- U.S. Electronics Imports:

\$6.4 billion for month

\$48.3 billion year-to-date, up 4.5%

Communications	up 1.5%
Components	up 1.9%
Computer/Industrial	up 12.9%
Consumer	down 6.3%

- U.S. Electronics Balance of Trade

deficit of \$808 million for month

deficit of \$1.3 billion year-to-date

Communications	surplus up 5.6%
Components	deficit to surplus
Computer/Industrial	surplus down 8.1%
Consumer	deficit down 9.2%

SUMMARY OF ECONOMIC DATA

Overall Industry Performance

U.S. factory shipments of electronics totaled \$22.5 billion in September, a 1.7% increase from a year ago, but a 1.4% decrease from August 1991. Sales for the first 3 quarters of 1991 totaled \$201.3 billion, up 1.4% from 1990. Third quarter sales rose 1.9% from third quarter 1990 to \$67.8 billion, and rose 0.7% over second quarter 1991.

The U.S. electronics industry recorded its second consecutive monthly trade deficit in excess of \$800 million in August, as imports exceeded exports by \$808 million. Exports totaled \$5.6 billion in August, rising 1.8% from July, while August imports totaled \$6.4 billion, rising just 0.3% from July. For the first 8 months of 1991, exports totaled \$47.0 billion and imports reached \$48.3 billion, increases of 6.8% and 4.5% respectively, over the previous year. The trade deficit through 8 months reached \$1.3 billion, a decline of 41%.

A total of 1.9 million workers were employed in the U.S. electronic industries during August 1991, a 5.8% decline from August 1990. Production workers totaled 880,100 workers in August, a decline of 5.8% from August 1990.

Communications Equipment

Communications shipments rose 2% from September 1990, to \$5.6 billion, while shipments decreased 3.4% from strong

August 1991 sales. Factory shipments of communications equipment rose 0.3% for the first 3 quarters of 1991, to \$50 billion. Third quarter shipments totaled \$16.9 billion, a 1.3% gain from third quarter 1990, and a 1% gain from the second quarter of this year. Prices of finished communications equipment rose at an annualized rate of 0.8% in August, but declined 0.1% from July. New orders for communications equipment rose 19.5% from September 1990, to \$5.8 billion, and rose 8.2% from August. New orders through the first 3 quarters of 1991 dropped 1.1%, to \$47.8 billion. New orders in the third quarter totaled \$17.4 billion, an 11% increase over third quarter 1990, and a 14% gain from second quarter 1991. The level of unfilled orders in September rose 1%, while inventories fell nearly 1%.

The communications equipment sector recorded a trade deficit of \$31 million in August. Exports declined 6.4% from July, totaling \$629 million. Imports also fell, dropping 0.8% from July, to \$660 million. For the first 8 months of 1991, exports totaled \$5.4 billion, rising 1.8%, while imports rose 1.5%, to \$5.1 billion. The communications trade surplus increased 5.6% through the first 8 months of the year, reaching \$376 million.

Total employment in the communications industry in August fell 7.3% from August 1990, to 506,700. The number of production workers totaled 208,600, a drop of 7.2%.

Components

Component shipments in September rose 3.1% from the previous year, to \$4.7 billion, but dropped 1.3% from August 1991. Component shipments during the first 3 quarters of 1991 totaled \$41.8 billion, an increase of 1.5%. Third quarter 1991 shipments totaled \$14.2 billion, a 2.3% gain from third quarter 1990 and a 0.8% increase from the second quarter of this year. Prices of finished components, on an annualized basis, were unchanged in August, although they did decline 0.1% from July. New orders in September rose 9.4% from September 1990, to \$4.7 billion, and rose 1.9% from August. New orders totaled \$42.4 billion for the first 3 quarters of the year, an increase of 2%. New orders in the third quarter rose 3.2% from third quarter 1990, to \$14.2 billion, and also gained 1.3% over second quarter 1991. The September level of unfilled orders increased 2.8% from August, while inventories fell 0.6%.

The components sector recorded a trade surplus of \$72 million in August as exports rebounded from July, rising 5.4% to \$1.9 billion, and August imports fell 2.6% to \$1.8 billion. For the first 8 months of 1991, exports grew 6.6%, reaching \$14.9 billion, while imports totaled \$14.9 billion, up 1.9%. As a result of the \$72 million August trade surplus, the components sector had an 8-month surplus of \$13 million, compared to a \$633 million deficit through the first 8 months of 1990.

Total employment in the components sector was 612,200 in August 1991, down 6.9% from August 1990. Employment of production workers in August fell 5.6% from August 1990 to 351,400.

Computer/Industrial

Factory shipments of computer/industrial equipment totaled \$6.6 billion in September, a 3.9% decline from September 1990, and a 1.6% decline from August. For the first 3 quarters of 1991, sales totaled \$61.4 billion, a decline of 1.3%. Third quarter sales totaled \$20.3 billion, a 1.1% decline from third quarter 1990 and a 1.6% decline from second quarter 1991. Prices of finished computer/industrial equipment declined at an annualized rate of 6% in August, and declined 1% from July. New orders fell sharply in September, dropping 12.5% from September 1990 to \$6.5 billion, and decreased 2.8% from August. New orders for the first 3 quarters of 1991 fell 2.1% to \$60.6 billion. During the third quarter, new orders declined 5.1% from third quarter 1990 to \$20 billion, and fell 1.3% from second quarter 1991. The September level of unfilled orders fell 0.8% from August, while the September level of inventories rose 0.4%.

The computer/industrial sector recorded a trade surplus of \$274 million in August, a 32.4% gain from the July surplus. August exports rose 0.8% from July, to \$2.9 billion, while imports fell 1.6% to \$2.6 billion. During the first 8 months of 1991, exports rose 7.9% to \$25 billion, while imports totaled \$20 billion, a gain of 12.9%. The year-to-date trade surplus totaled \$5.1 billion, down 8.1% from 1990.

Total employment in the computer/industrial sector was 706,300 in August, a drop of 3.7% from August 1990. The number of production workers in September fell 4.5% from September 1990, to 281,300.

Consumer Electronics

Shipments of domestically-produced audio, video, blank media products and electronic toys rose 17.8% from September 1990, to \$631 million, and rose 1.0% from August. For the first 3 quarters of 1991, sales rose 10.7%. Third quarter sales totaled \$1.9 billion, a 17.9% gain from third quarter 1990 and an 11.8% increase over second quarter. Prices of finished consumer electronics increased at an annualized rate of 1% in August and rose 0.1% from July.

Other Related Products & Services

U.S. factory shipments and receipts of other related products and services totaled \$5 billion in September, up 6.6% from September 1990. Such sales rose 1% from August 1991. Shipments and receipts during the first three quarters of 1991 rose 5.6% over the same period in 1990. Third quarter sales rose 4.9% from third quarter 1990, to \$14.7 billion, and 2.1% from second quarter.

Total Consumer Electronics Sales (including imports)

U.S. sales of consumer electronics totaled \$3.6 billion in September, an increase of 0.2% from September 1990. Sales of video products rose 3.7% in September, to \$1.6 billion. For the first 3 quarters of 1991, sales of video products have fallen

3.9%, to \$8.1 billion. September sales of audio products fell 7.7% from the same period in 1990, to \$883 million. Sales through September totaled \$6.8 billion, a 2.4% decrease. September sales of home information equipment totaled \$909 million, an increase of 3.9%. Sales in the first 9 months of 1991 totaled \$7.4 billion, up 6.9%. Sales of blank media and accessories declined 6% in September, to \$184 million. Sales for the first 9 months of 1991 have increased 1.0% to \$1.6 billion.

The consumer electronics sector recorded a \$1.1 billion trade deficit in August. Exports totaled \$221 million in August, a 13.3% increase from July. Imports rose 9.4%, to \$1.3 billion, from July 1991. For the first 8 months of the year, exports grew 8%, reaching \$1.7 billion, while imports fell 6.3% to \$8.5 billion.

Producer Prices

The producer price index for electronic components rose at an annualized rate of 0.3% in September. The index for intermediate materials less food and energy declined at an annualized rate of 1.2%. The index for finished goods less food and energy rose at an annualized rate of 2.8% in September.

Consumer Prices

The CPI index for television declined at an annualized rate of 1.1% in September. The index for audio products rose an annualized 1.6%. The CPI for urban consumers (CPI-U) increased at an annualized rate of 3.4% in September.

Electronic Industries Trends by Industry Group

U.S. Factory Sales¹

(millions of dollars)

	Communications Equipment	Components	Computer/ Industrial	Consumer Electronics ²	Other Related Products & Services	Total ³
September 1991 ^p	5,568	4,663	6,648	631	4,968	22,479
September 1990 ^r	5,459	4,523	6,918	536	4,661	22,097
Percent Change	+ 2.0	+ 3.1	- 3.9	+ 17.8	+ 6.6	+ 1.7
September 1991 Y-T-D ^p	49,960	41,779	61,444	4,679	42,868	201,291
September 1990 Y-T-D ^r	49,798	41,207	62,261	5,181	40,602	198,547
Percent Change	+ 0.3	+ 1.4	- 1.3	+ 10.7	+ 5.6	+ 1.4
1989	63,606	54,903	80,616	6,213	48,727	254,065
1990	66,575	55,164	83,350	6,382	54,495	265,966

¹ Current dollars

² Includes U.S. produced audio, video, blank media products, and electronic toys only, see pg. 6 for total consumer electronic sales including imports.

³ Totals may not add due to rounding.

^p preliminary

^r revised

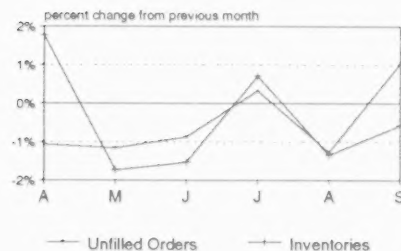
Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

Factory Activity Indicators

Communications Equipment

New Orders

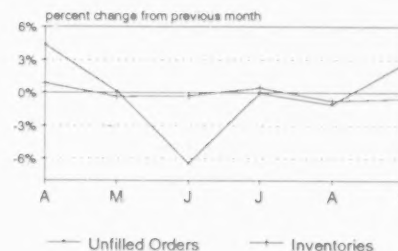
	1991	1990	% chg.
September	5,770	4,818	19.5
Jan. - Sep.	47,768	48,324	-1.1



Components

New Orders

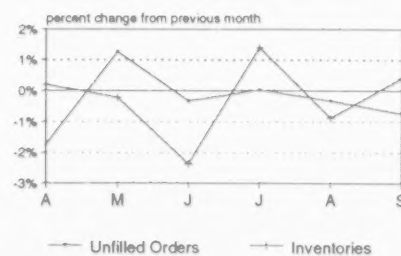
	1991	1990	% chg.
September	4,728	4,326	9.4
Jan. - Sep.	42,400	41,549	2.0



Computer and Industrial Products

New Orders

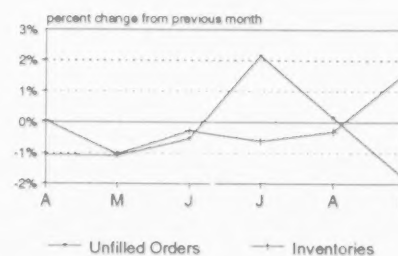
	1991	1990	% chg.
September	6,486	7,416	-12.5
Jan. - Sep.	60,585	62,195	-2.1



Other Related Products*

New Orders

	1991	1990	% chg.
September	2,024	3,358	-39.4
Jan. - Sep.	26,368	28,550	-7.6



*excludes computer services

Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

Total Consumer Electronics Sales¹

(millions of dollars)

Product Group	September			January - September		
	1991	1990	% change	1991	1990	% change
Video Products	1,586	1,529	3.7%	8,050	8,380	-3.9%
Audio Products	883	957	-7.7%	6,805	6,972	-2.4%
Home Information ² Equipment	909	875	3.9%	7,432	6,951	6.9%
Blank Media and Accessories	184	196	-6.0%	1,582	1,566	1.0%
Total	3,562	3,556	0.2%	23,870	23,869	-

¹
Includes product estimations and imports.

²
Includes home security systems.

Note:
This table is provided to more accurately reflect the size of the U.S. consumer electronics market, see pg. 4 for sales of U.S. produced audio, video, blank media products, and electronic toys.

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Source: EIA Marketing Services Department

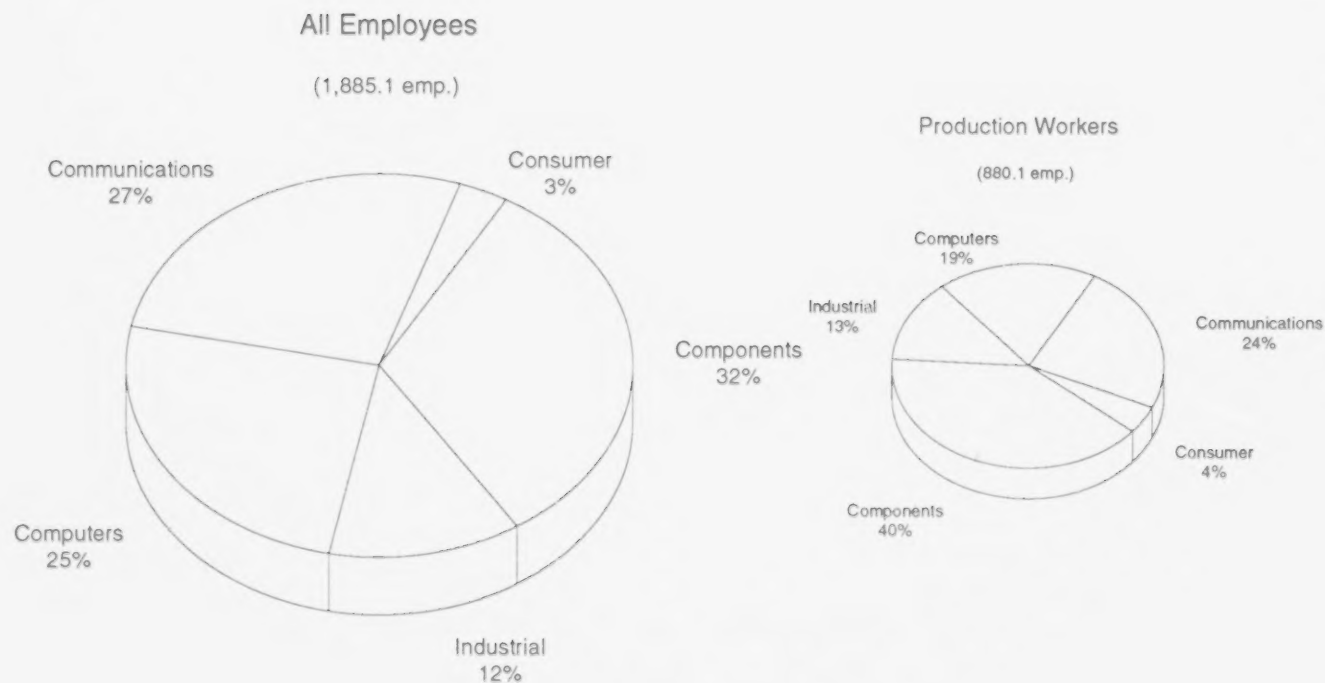
U.S. Electronics Employment (thousands of workers) August¹

	1991	1990	% change	1991 Production Worker Ratio	Annual Averages	
					1989	1990
Communications						
Production Workers	208.6	224.8	-7.2%	41.2%	237.2	224.1
All Employees	506.7	546.4	-7.3%		570.3	539.0
Components						
Production Workers	351.4	372.2	-5.6%	57.4%	387.2	377.3
All Employees	612.2	657.3	-6.9%		685.9	645.1
Computers						
Production Workers	166.0	166.9	-0.5%	35.1%	180.4	172.7
All Employees	473.5	489.8	-3.3%		520.0	502.6
Industrial						
Production Workers	115.3	127.6	-9.6%	49.5%	132.1	126.6
All Employees	232.8	243.7	-4.5%		249.0	242.0
Consumer Electronics						
Production Workers	38.8	42.6	-8.9%	64.8%	45.3	42.8
All Employees	59.9	64.6	-7.3%		66.1	64.6
Total						
Production Workers	880.1	934.1	-5.8%	46.7%	982.2	943.5
All Employees	1,885.1	2,001.8	-5.8%		2,091.3	1,993.3

¹ preliminary

Source: U.S. Department of Labor, BLS
compiled by EIA Marketing Services Department.

U.S. Electronics Employment August 1991 (thousands of workers)



Source: U.S. Department of Labor, BLS
compiled by EIA Marketing Services Department.

U.S. Electronics Trade

(millions of dollars)

Product Group	Imports Jan. - Aug.			Exports Jan. - Aug.		
	1991	1990 ^r	% change	1991	1990 ^r	% change
Communications	5,069	4,992	1.5%	5,445	5,347	1.8%
Electron Tubes	345	338	2.1%	430	313	37.4%
Passive Components ²	6,008	6,113	-1.7%	4,822	4,687	2.9%
Solid State Products	8,509	8,131	4.6%	9,623	8,949	7.5%
Computer/Industrial	19,930	17,651	12.9%	25,033	23,202	7.9%
Consumer Electronics	8,487	9,054	-6.3%	1,684	1,559	8.0%
Total ¹	48,348	46,278	4.5%	47,037	44,057	6.8%

1

Totals may not add due to rounding.

2

Includes Electromechanical Components.

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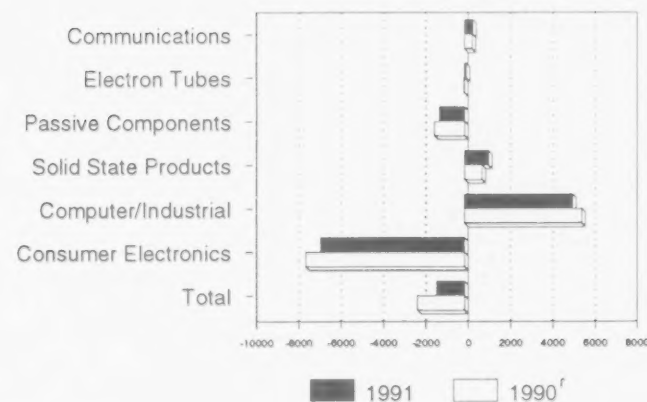
Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

U.S. Electronics Balance of Trade

Jan. - Aug.
(millions of dollars)

Product Group	1991	1990 ^f	% change
Communications	376	356	5.6%
Electron Tubes	85	-25	n/m
Passive Components ²	-1,186	-1,426	-16.8%
Solid State Products	1,114	818	36.2%
Computer/Industrial	5,103	5,551	-8.1%
Consumer Electronics	-6,803	-7,495	-9.2%
Total ¹	-1,311	-2,221	-41.0%

Jan. - Aug.
(millions of dollars)



¹

Totals may not add due to rounding.

²

Includes Electromechanical Components.

^f

revised

Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

U.S. Electronics Trade

(millions of dollars)

August 1991

Product Group	Imports	Exports	Balance of Trade
Communications	660	629	-31
Electron Tubes	49	52	3
Passive Components ²	661	640	-21
Solid State Products	1,097	1,187	90
Computer/Industrial	2,631	2,905	274
Consumer Electronics	1,344	221	-1,123
Total ¹	6,442	5,634	-808

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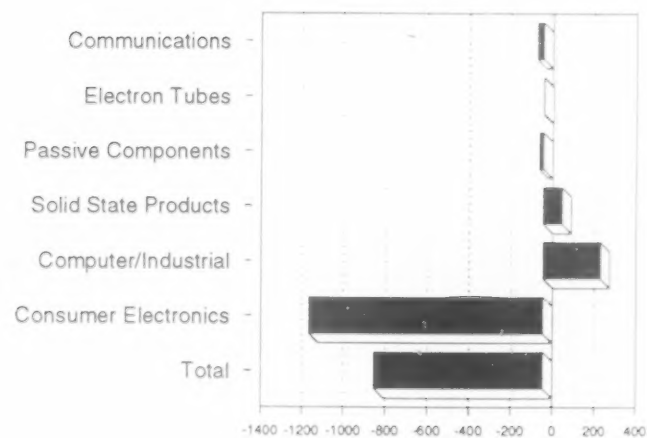
Totals may not add due to rounding.

2

Includes Electromechanical Components.

Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

August 1991
Balance of Trade



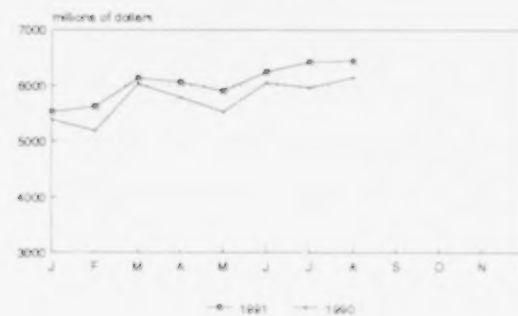
U.S. Electronics Balance of Trade By Month



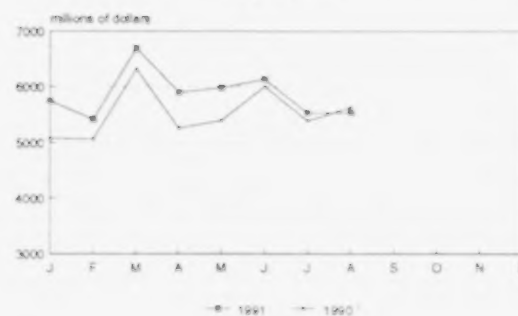
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Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

U.S. Electronics Imports By Month



U.S. Electronics Exports By Month



U.S. Bilateral Trade by Product Group
Major U.S. Trade Partners
(millions of dollars)
Jan. - Aug. 1991

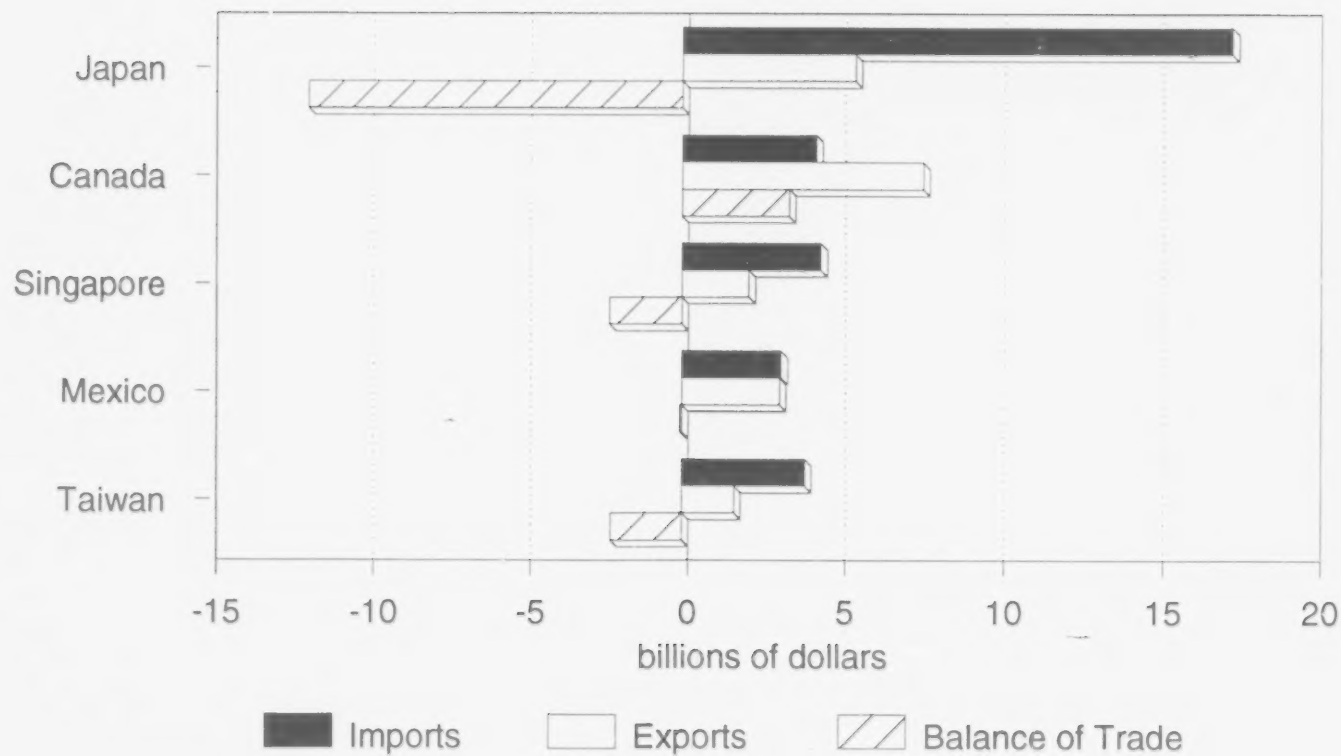
Product Group	Japan	Canada	Singapore	Mexico	Taiwan	Germany	U.K.	S. Korea	Malaysia	France	Other	Total
Communications												
Imports	1,586	602	199	218	336	105	146	257	306	146	1,168	5,069
Exports	606	660	94	340	228	229	398	223	43	216	2,408	5,445
Balance of Trade	-980	58	-105	122	-108	124	252	-34	-263	70	1,240	376
Electron Tubes												
Imports	228	11	0	3	35	19	17	5	0	16	11	345
Exports	45	48	17	135	10	18	31	19	3	14	90	430
Balance of Trade	-183	37	17	132	-25	-1	14	14	3	-2	79	85
Passive Components ²												
Imports	1,423	1,058	260	1,209	598	328	102	128	114	59	729	6,008
Exports	321	1,140	139	1,059	109	278	235	114	20	167	1,240	4,822
Balance of Trade	-1,102	82	-121	-150	-489	-50	133	-14	-94	108	511	-1,186
Solid State Products												
Imports	2,364	928	740	224	447	200	149	1,166	1,050	88	1,153	8,509
Exports	1,040	1,789	818	292	730	337	581	634	1,127	270	2,005	9,623
Balance of Trade	-1,324	861	78	68	283	137	432	-532	77	182	852	1,114
Computer/Industrial												
Imports	7,370	1,618	2,848	637	2,152	1,028	874	817	219	292	2,075	19,930
Exports	3,377	3,567	1,027	1,030	508	2,586	2,451	681	163	1,218	8,425	25,033
Balance of Trade	-3,993	1,949	-1,821	393	-1,644	1,558	1,577	-136	-56	926	6,350	5,103
Consumer Electronics												
Imports	4,416	51	374	861	348	55	29	849	576	6	922	8,487
Exports	128	466	29	252	71	108	71	36	2	32	489	1,684
Balance of Trade	-4,288	415	-345	-609	-277	53	42	-813	-574	26	-433	-6,803
Total ¹												
Imports	17,387	4,268	4,421	3,152	3,916	1,735	1,317	3,222	2,265	607	6,058	48,348
Exports	5,517	7,670	2,124	3,108	1,656	3,556	3,767	1,707	1,358	1,917	14,657	47,037
Balance of Trade	-11,870	3,402	-2,297	-44	-2,260	1,821	2,450	-1,515	-907	1,310	8,599	-1,311

¹ Totals may not add due to rounding.

² Includes Electromechanical Components.

Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

Top 5 Countries Total U.S. Electronics Trade Jan. - Aug. 1991



Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

U.S. Trade of Electronic Products

(millions of dollars)

	August 1991		August Year-to-Date 1991		
	Imports	Exports	Imports	Exports	Balance of Trade
Communications					
Telephone Sets and Parts	78	15	608	129	-479
Telephonic Apparatus and Parts	76	124	663	948	285
Telegraphic Apparatus and Parts	40	46	286	333	47
Radio Transmitters	5	23	47	210	163
Radio Receivers	14	15	109	138	30
Radio Transceivers	50	62	371	534	163
Telephone Answering Devices	31	7	179	74	-106
TV Transmission/Reception Apparatus	96	66	800	712	-88
Cellular Telephones	18	56	182	403	221
Facsimile Machines	74	0	561	0	-561
Cordless Telephones	77	9	486	55	-431
Smoke Detectors and Other Alarms	18	13	124	98	-26
Modems	11	22	91	224	132
Sound/Sight Signaling Apparatus	1	3	12	33	21
Radar/Radio Navigational Equipment	69	166	542	1,540	998
Meteorological/Geophysical Instruments	0.57	2	4	13	8
Paging Alert Devices	0.77	0.26	4	1	-3
Total ¹	660	629	5,069	5,445	376
	August 1991		August Year-to-Date 1991		
	Imports	Exports	Imports	Exports	Balance of Trade
Electron Tubes					
Cathode Ray Tubes	39	37	252	290	38
Receiving Tubes	0.16	0.39	2	3	2
Power and Special Purpose Tubes	10	15	91	137	46
Total ¹	49	52	345	430	85

¹

Totals may not add due to rounding.

Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

U.S. Trade of Electronic Products

(millions of dollars)

Passive/Electromechanical Components

	August 1991		August Year-to-Date 1991		
	Imports	Exports	Imports	Exports	Balance of Trade
Capacitors	43	43	344	312	-32
Resistors	25	15	213	124	-90
Relays	13	25	217	207	-10
Connectors	37	12	314	94	-220
Wire and Other Conductors	89	105	674	765	91
Transformers	11	5	92	28	-64
Power Supplies	13	10	451	88	-363
Optical Fibers	3	22	43	161	118
Printed Circuits and Boards	108	125	1,435	1,138	-298
Parts of TV/Audio/Communication App.	250	239	1,665	1,618	-47
Indicator Panels	24	6	206	41	-165
Switches	12	2	85	19	-66
Piezoelectric Crystals	13	5	102	40	-62
Other Parts	20	25	168	188	20
Total ¹	661	640	6,008	4,822	-1,186

Solid State Products

	August 1991		August Year-to-Date 1991		
	Imports	Exports	Imports	Exports	Balance of Trade
Integrated Circuits					
EPROMs	52	17	413	117	-297
Microprocessors	71	95	470	706	235
DRAMs	199	107	1,583	548	-1,035
SRAMs	56	16	531	151	-380
Analog	111	52	795	406	-389
Other	395	279	3,015	2,374	-640
Diodes	27	13	214	114	-99
Transistors	39	5	309	48	-262
Chips, Wafers, and Parts all types	127	584	1,021	5,011	3,990
Solar Cells	1	3	9	26	16
Other Semiconductor Devices	20	17	149	124	-25
Total ¹	1,097	1,187	8,509	9,623	1,114

¹

Totals may not add due to rounding.

Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

U.S. Trade of Electronic Products

(millions of dollars)

	August 1991		August Year-to-Date 1991		
	Imports	Exports	Imports	Exports	Balance of Trade
Computer/Industrial					
Computers	369	582	2,433	5,249	2,826
Monitors	247	46	1,853	430	-1,423
Disk Drives and Blank Computer Media	561	391	4,708	3,557	-1,151
Printers	192	86	1,628	763	-864
Other Computer Peripherals	69	96	523	698	175
Other Business Machines and Parts	809	963	5,626	8,232	2,607
Electromedical Devices and Parts	182	210	1,447	1,800	353
Industrial Robots	14	7	124	49	-75
Testing/Analyzing Equipment	48	167	389	1,358	968
Measuring/Analyzing Equipment	60	213	514	1,803	1,289
Process Control Devices	69	71	450	558	108
Other Electrical Machinery/Parts	12	73	246	536	290
Total ¹	2,631	2,905	19,930	25,033	5,103

	August 1991		August Year-to-Date 1991		
	Imports	Exports	Imports	Exports	Balance of Trade
Consumer Electronics					
Color TV Receivers	149	45	998	291	-707
Monochrome TV Receivers	6	4	53	34	-19
VCR Decks	241	14	1,492	117	-1,375
Camcorders	186	0	1,225	0	-1,225
Videocassette Players	12	0	86	0	-86
Laserdisc Players	7	5	64	42	-22
Portable Audio Equipment	90	8	533	60	-473
Separate Audio Components	236	79	1,524	594	-930
Home Radios	10	0.41	61	2	-59
Home Radio/Tape Combinations	129	5	687	24	-663
Autosound Equipment	103	20	777	178	-598
Blank Media	82	29	566	251	-315
Video Games	92	11	420	91	-329
Total ¹	1,344	221	8,487	1,684	-6,803

¹

Totals may not add due to rounding.

Source: U.S. Department of Commerce,
compiled by EIA Marketing Services Department.

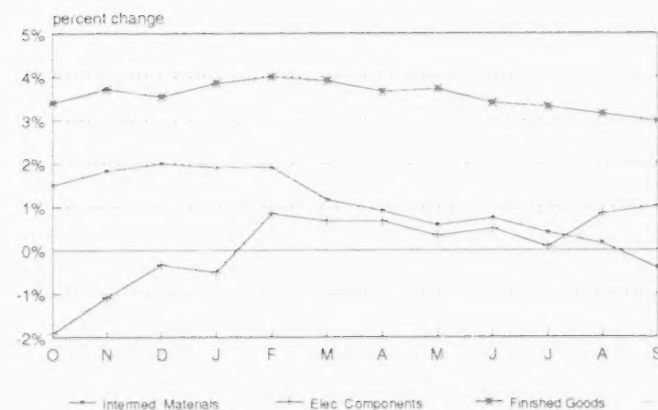
Producer Price Indices

(1982-84=100)

Annual Rates

Year	Intermediate Materials ¹	Electronic Components ²	Finished Goods ³
1986	0.2%	1.9%	2.8%
1987	5.3%	0.4%	2.1%
1988	7.1%	2.2%	4.2%
1989	0.1%	1.8%	3.6%
1990	1.9%	-0.3%	3.5%
Annualized Rate September 1991	-1.2%	0.3%	2.8%

12-month Rates of Change (annual rate ending each month)



¹ Intermediate Materials less food and energy

² Electronic Components and Accessories

³ Finished Goods less food and energy

Source: U.S. Department of Labor, BLS

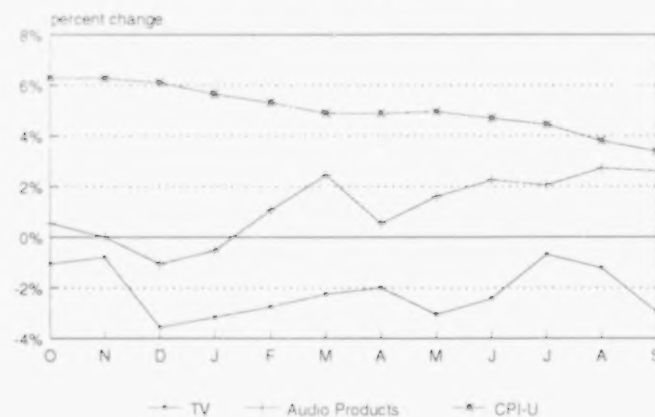
Consumer Price Indices

(1982-84=100)

Annual Rates

Year	TV	Audio Products	CPI-U All Items
1986	-6.2%	-2.8%	1.2%
1987	-4.2%	1.3%	4.4%
1988	-2.6%	-0.3%	4.2%
1989	-1.9%	0.1%	4.7%
1990	-3.6%	-1.1%	6.1%
Annualized Rate September 1991	-1.1%	1.6%	3.4%

12-month Rates of Change (annual rate ending each month)

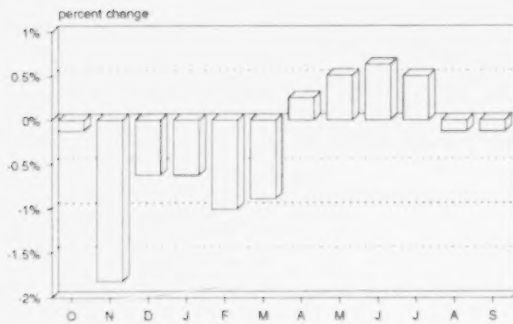


Source: U.S. Department of Labor, BLS

EXPLANATORY NOTES FOR KEY ECONOMIC INDICES

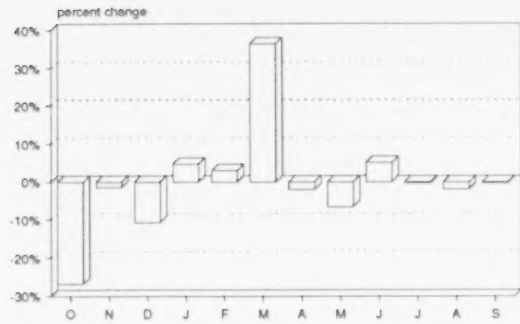
- **Capacity Utilization** - Measures the level of capacity in use during a specified period of time for the manufacturing, mining, and electric and gas utilities industries. The graph depicts the percent change in capacity utilization from the previous month to the current month. Capacity utilization is sometimes useful in measuring manufacturing "slack" capacity, and in times of rising utilization rates it is often viewed as a harbinger of rising short-term inflation.
- **Consumer Confidence Index** - Measures the relative level of consumer confidence towards a number of issues, namely those relating to general business conditions, job availability, and personal income. The data are seasonally adjusted and indexed from 1985. The graph shows the percent change in the index from the previous month to the current month. This measure is an indicator of consumers current and future attitudes which may translate into upswings or downturns in buying patterns.
- **Government Purchases** - Measures the level of federal government purchases of goods and services in the calendar year. The graph depicts the annualized rate of change for a particular quarter compared to the previous quarter. This measure is an indicator of the trends in government fiscal policy.
- **Trade Weighted Value of Dollar** - Measures the dollar's bilateral trade weighted value. Eighteen countries are included in the index and are weighted by the total trade each country had with U.S. from a base year of 1984. The graph displays the percent change in the index from the previous month to the current month. This index provides a truer representation of the effects of dollar movements on total trade than a simple comparison of the dollar/yen/pound/D-mark.
- **Industrial Production** - Measures the output in the manufacturing, mining, and electric and gas utilities industries. The graph depicts the percent change in the index from the previous month to the current month. Strong growth in this measure is consistent with long-term economic growth.
- **Housing Starts** - Measures the number of privately owned housing units started, on an annualized basis, by month. The graph shows the percent change in housing starts from the previous month to the current month. Housing starts are important as a current indicator of economic health and are also important as an indicator of sales of consumer durables.
- **Leading Economic Indicators Index** - This index is composed of 11 components: manufacturing hours, unemployment claims, new orders for consumer goods and materials, vendor performance, contracts and orders for plant and equipment, building permits, change in unfilled orders, change in materials prices, stock prices (500 common stocks), money supply M-2, and Index of consumer expectations. The graph displays the percent change in the index from the previous month to the current month. This index attempts to gauge the economic health of the economy over the proceeding 3 to 6 month period.
- **90 Day T-Bill Rate** - Measures the end-of-month market rate for 90 Day treasury bills. The graph for this measure tracks the end of month rate for a running 12-month period. This essentially risk-less measure of short-term interest rates provides a benchmark for other short-term debt instruments such as commercial paper.
- **Unemployment Rate** - Measures the percent of the labor force currently unemployed. The rate as shown, follows the unemployment rate by month for a running 12-month period seasonally adjusted. This measure is important as a general measure of economic health and job creation.
- **Real GNP** - Measures the real value, in 1982 dollars, of all goods and services in the U.S. economy. The level of GNP is published quarterly. The graph depicts the annualized rate of change in GNP from the previous quarter to the current quarter. This measure depicts the rate of growth or decline of the overall economy.
- **Real Money Supply M-2** - Measures the real level of money supply M-2, in 1982 dollars, which consists of coins and currency, checking accounts, also savings accounts, money market mutual funds, and money market deposit accounts less than \$100,000. The graph shows the percent change in real M-2 from the previous month to the current month. This measure helps to reflect Federal Reserve liquidity policy and long-term inflation trends.

Capacity Utilization (percent change from previous month)



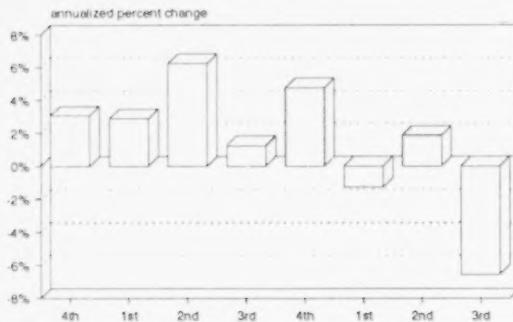
Source: Federal Reserve Board

Consumer Confidence Index (percent change from previous month)



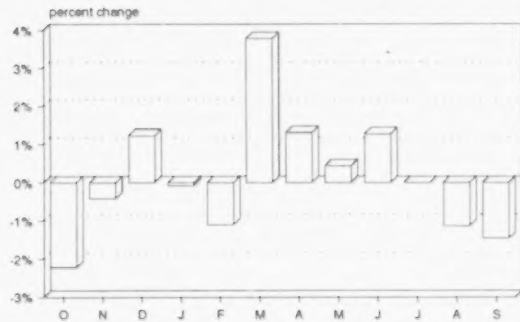
Source: Conference Board

Government Purchases (quarter vs. previous quarter)



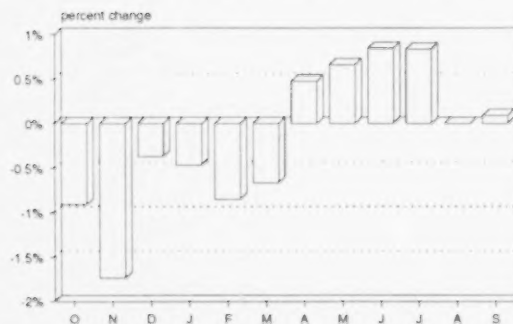
Source: U.S. Department of Commerce

Trade Weighted Value of Dollar (percent change from previous month)



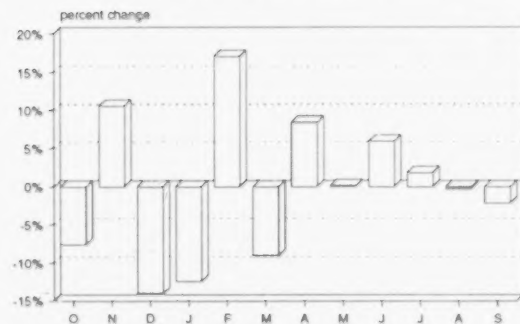
Source: Federal Reserve Bank of Atlanta

Industrial Production (percent change from previous month)



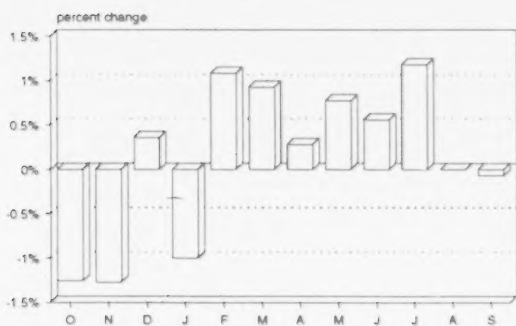
Source: Federal Reserve Board

Housing Starts (percent change from previous month)



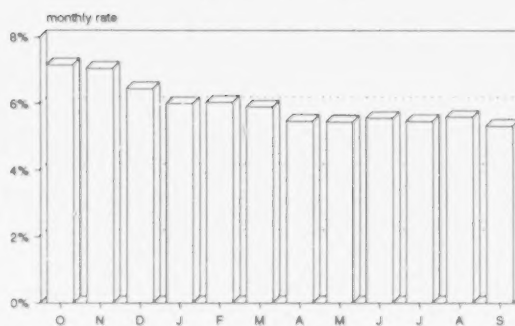
Source: U.S. Department of Commerce

Leading Economic Indicators (percent change from previous month)



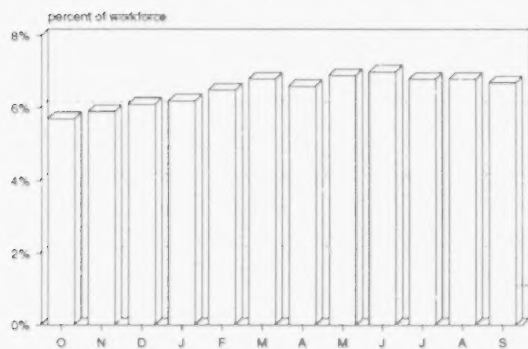
Source: U.S. Department of Commerce

90 Day T-Bill Rate (end-of-month rate)



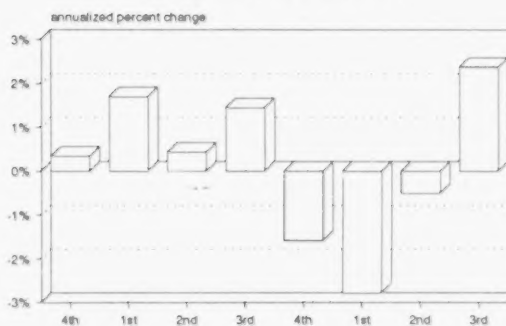
Source: Federal Reserve Board

Unemployment Rate



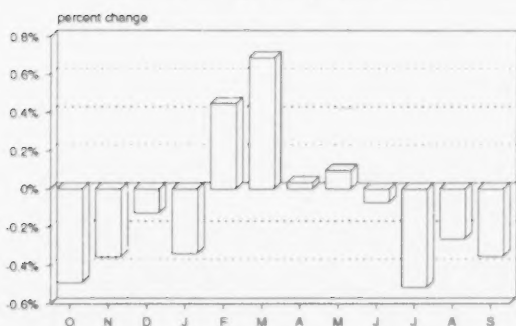
Source: U.S. Department of Labor

Real GNP (quarter vs. previous quarter)



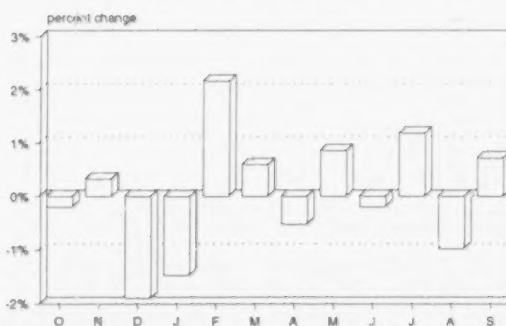
Source: U.S. Department of Commerce

Real Money Supply M-2 (percent change from previous month)



Source: Federal Reserve Board

Retail Sales (percent change from previous month)



Source: U.S. Department of Commerce

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